MONITOR WELL PRE-SPUD PROPOSAL

1) WELL NAME/NUMBER: WW-1

2) PROPOSED LOCATION: (a) General (on or off-site) Off-site
(attach map) Site Area NASA Land
(b) Sect 31 Twnshp 20S Rng 3E SE ¼ SE ¼ SE ¼

3) WELL PARAMETERS:
(a) Est. total depth 500 (ft) (b) Est. ground elevation 4455 ft
(c) Anticipated stratigraphy:
Santa Fe Group from 0 ' to TD ' (depth)
_____ from _____ ' to _____ ' (depth)
_____ from _____ ' to _____ ' (depth)
(d) Anticipated water bearing horizon(s):
Santa Fe Group at 400 ' (depth)
_____ at _____ ' (depth)
(e) Anticipated static water level 400 ' (depth)

4) WELL PURPOSE/JUSTIFICATION (attach maps and table if needed):
Downgradient, shallow monitoring well adjacent to state and private land. Plume delineation well.

5) PROPOSED DRILLING PARAMETERS:
(a) Drilling method(s): (air/foam/mud rotary/auger/etc.)
Mud/rotary ' from 0 ' to 300 ' (depth)
Air foam/rotary ' from 300 ' to TD ' (depth)
_____ ' from _____ ' to _____ ' (depth)
(b) Lithology sampling - collect sample every:
5' intervals Method Grab from 0 ' to TD (depth)
Core type 2" Christiansen from 400 ' to 410 ' (depth)
2" Christiansen from _____ ' to _____ ' (depth)
2" Christiansen from _____ ' to _____ ' (depth)
(c) Drilling rig type: Chicago Pneumatic
(d) Anticipated drilling additive(s): None
Water source NASA Quality checked by GC (method)

(e) Decontamination/Quality Assurance:

Clean equipment by steam (method) prior to every well

Clean tools by steam (method) prior to every well

Other QA procedures Air filtering/monitoring, periodic steam cleaning of tools/sampling equipment when necessary

(f) Drilling company: Larjon Drilling

address: P.O. Box 925, Las Cruces, New Mexico 88047

Company representative: Larry Johnson Phone 505-526-8672

6) PROPOSED BOREHOLE GEOPHYSICS

(a) Survey type: GR - Neutron from 0 ' to TD (depth)

Survey type: GR-Den-Res-Cal from 0 ' to TD (depth)

Survey type: 16"-40" E-Log from 0 ' to W.L. (depth)

(b) Geophysical company: Southwest Survey

address: 4200 Skyline Drive, Farmington, NM 87401

Company representative: Don Pierson Phone 505-325-8531

7) PROPOSED WELL COMPLETION DESIGN/MATERIALS

(a) Casing:	Material	Diameter	From	To	Comments
Temporary	None				
Surface	steel	8" or 10"	0	100' max	100'
Blank (riser)	stainless	4"	0	+3'	
Screen	stainless	4"			0.02
Completion Pipe	stainless	4"	0	TD	*
	PVC	4"	0	W.L.	**
Silt trap	stainless	4"	to 5' below screen		
Protective Cap	stainless	4"	on top with lock		

NA = Data not available at this time

* for deep completions (500 feet or more)

** for shallow completions

(b) Filter pack:

	Primary	Secondary
Material type	Prewashed sand	Prewashed sand
Grain Size	8-14/10-20 mix	16/40
Est. length (thick)	20 feet	2-3' above gravel pack
	16/40 filler sand	

(c) Seal - Upper: Bentonite Thickness 5 feet above upper 16/40 sand
Lower: Bentonite Thickness 5 feet below lower 16/40 sand

(d) Grout - Material 5% Bentonite cement from above completion zone to the surface

8) PROPOSED WELL DEVELOPMENT

(a) Development method Surge and pump
Equipment Pulling unit with bailer & submersible pump

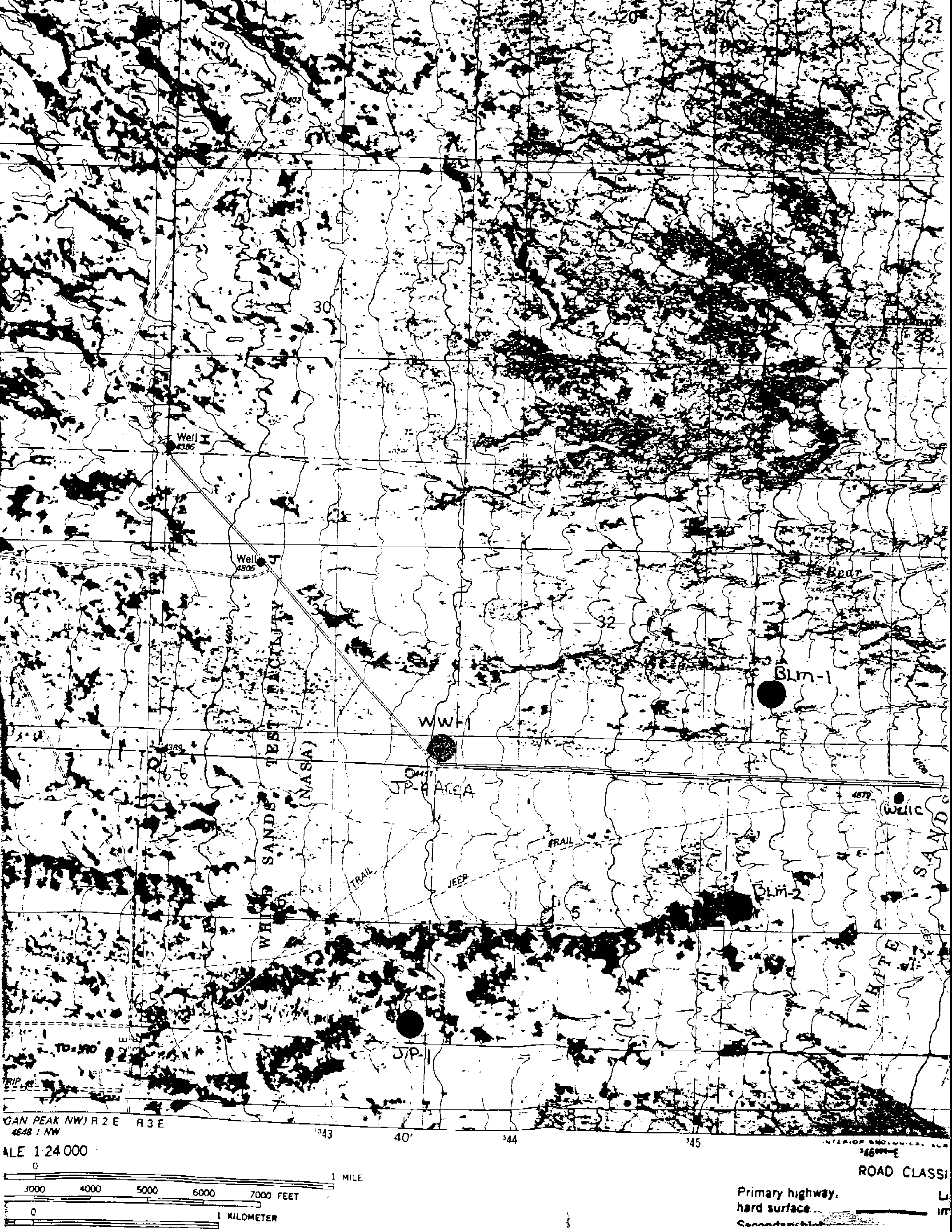
(b) Anticipated flow rate 5-15 gpm Duration until adequately devel.

(c) Company providing service Larjon

9) WELL AUTHORIZATION

(a) Proposed by Geoscience Consultants, Ltd.

(c) Authorized _____ (name) NASA (representing) _____ (signature)



Well I
4386
Well
4805
WHITE SANDS TEST FACILITY (NASA)
WW-1
JP-4 AREA
4451
Blm-1
Blm-2
Bear
Well
4879
JP-1
TD=590'
TRAIL
JEEP
WHITE SANDS
30
32
GAN PEAK NW) R 2 E R 3 E
4648 I NW
343
40'
344
345
ALE 1:24 000
1 MILE
3000 4000 5000 6000 7000 FEET
1 KILOMETER
ROAD CLASS
Primary highway, hard surface